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Atty Dkt. No.: YAMA-001CON9
USSN: 09/942,032

CLAIMS

Claims 1-28 (Previously Canceled)

- E2
29. (Withdrawn) A method of disrupting the egg laying activity of insects which are attracted by olfactory stimuli to the crop of a plant and which lay their eggs in such crop and cause damage to the crop when the eggs are hatched, said method comprising applying to the foliage of such plant an attractant comprising an aqueous solution of an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.
30. (Withdrawn) The method of Claim 29 wherein the attractant is an emulsion of a crop oil.
31. (Withdrawn) The method of Claim 29 wherein the insect is the naval orange worm.
32. (Withdrawn) A method of controlling frost damage to plants or their crops wherein microorganisms are present which function as an ice nucleating factor and thereby exacerbate frost damage, said method comprising applying a composition comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component, a complexing agent and microorganisms which are antagonistic to said ice-nucleating microorganisms to the surface of the plants infested with ice-nucleating microorganisms.
33. (Withdrawn) The method of 32 wherein such antagonistic microorganisms are included in said composition prior to application to the surfaces of plants.
34. (Withdrawn) A method of treating seeds to promote growth of plants to be grown from the seeds, said method comprising coating the seeds with a composition comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.
35. (Withdrawn) The method of Claim 34 wherein the seeds are treated, prior to such coating, to remove pathogens from their surfaces.

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36. (Withdrawn) The method of Claim 34 wherein the coating includes micro-organisms which act on the soil in which the seeds are to be planted to promote germination of the seeds and growth of resulting plants.
37. (Withdrawn) Seeds coated with a composition comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.
38. (Withdrawn) A method of treating roots of plants, said method comprising applying a composition comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent to the roots.
- E2 39. (Withdrawn) The method of Claim 38 wherein said composition also contains micro-organisms which act on the soil in which the roots are planted to promote growth of the plants.
40. (Previously Amended) A method of treating soil to promote the growth of plants therein, said method comprising mixing with the soil a composition comprising an assimilable carbon skeleton energy component, a macronutrient component, a micronutrient component, a vitamin/cofactor component and a complexing agent.
41. (Previously Amended) The method of Claim 40 wherein said composition also contains microorganisms which have a beneficial effect upon the soil or which act as antagonists to at least one of pathogens and pests in the soil.
42. (Withdrawn) The method according to Claim 29 wherein the complexing agent is selected from the group consisting of: citric acid, lignosulfonates, fulvic acid, ulmic acid, humic acid, Katy-J, RIDTA, EDDA, EDDHA, HEDTA, CDTA, PTPA or NTA.
43. (Withdrawn) The method according to Claim 29 wherein the carbon skeleton energy component is selected from the group consisting of: mannose, lactose, dextrose, arylthrose, fructose, fucose,

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galactose, glucose, gulose, maltose, raffinose, ribose, ribulose, rutinose, saccharose, stachyose, trehalose, xylose, xylulose, adonose, amylose, arabinose, fructose phosphate, fucose-p, galactose-p, glucose-p, lactose-p, maltose-p, mannose-p, ribose-p, ribulose-p, xylose-p, xylulose-p, deoxyribose, adonitol, galactitol, glucitol, maltitol, mannitol, mannitol-p, ribitol, sorbitol, sorbitol-p, xylitol and mixtures thereof.

44. (Withdrawn) The method according to Claim 32 wherein the complexing agent is selected from the group consisting of: citric acid, lignosulfonates, fulvic acid, ulmic acid, humic acid, Katy-J, EDTA, EDDA, EDDHA, HEDTA, CDTA, PTPA or NTA.

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45. (Withdrawn) The method according to Claim 32 wherein the carbon skeleton energy component is selected from the group consisting of: mannose, lactose, dextrose, erythrose, fructose, fucose, galactose, glucose, gulose, maltose, raffinose, ribose, ribulose, rutinose, saccharose, stachyose, trehalose, xylose, xylulose, adonose, amylose, arabinose, fructose phosphate, fucose-p, galactose-p, glucose-p, lactose-p, maltose-p, mannose-p, ribose-p, ribulose-p, xylose-p, xylulose-p, deoxyribose, adonitol, galactitol, glucitol, maltitol, mannitol, mannitol-p, ribitol, sorbitol, sorbitol-p, xylitol and mixtures thereof.

46. (Withdrawn) The method according to Claim 34 wherein the complexing agent is selected from the group consisting of: citric acid, lignosulfonates, fulvic acid, ulmic acid, humic acid, Katy-J, EDTA, EDDA, EDDHA, HEDTA, CDTA, PTPA or NTA.

47. (Withdrawn) The method according to Claim 34 wherein the carbon skeleton energy component is selected from the group consisting of: mannose, lactose, dextrose, erythrose, fructose, fucose, galactose, glucose, gulose, maltose, raffinose, ribose, ribulose, rutinose, saccharose, stachyose, trehalose, xylose, xylulose, adonose, amylose, arabinose, fructose phosphate, fucose-p, galactose-p, glucose-p, lactose-p, maltose-p, mannose-p, ribose-p, ribulose-p, xylose-p, xylulose-p, deoxyribose, adonitol, galactitol, glucitol, maltitol, mannitol, mannitol-p, ribitol, sorbitol, sorbitol-p, xylitol and mixtures thereof.

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48. (Withdrawn) The method according to Claim 37 wherein the complexing agent is selected from the group consisting of: citric acid, lignosulfonates, fulvic acid, ulmic acid, humic acid, Katy-J, EDTA, EDDA, EDDHA, HEDTA, CDTA, PTPA or NTA.

49. (Withdrawn) The method according to Claim 37 wherein the carbon skeleton energy component is selected from the group consisting of: mannose, lactose, dextrose, erythrose, fructose, fucose, galactose, glucose, gulose, maltose, raffinose, ribose, ribulose, rutinose, saccharose, stachyose, trehalose, xylose, xylulose, adonose, amylose, arabinose, fructose phosphate, fucose-p, galactose-p, glucose-p, lactose-p, maltose-p, mannose-p, ribose-p, ribulose-p, xylose-p, xylulose-p, deoxyribose, adonitol, galactitol, glucitol, maltitol, mannitol, mannitol-p, ribitol, sorbitol, sorbitol-p, xylitol and mixtures thereof.

E2
50. (Withdrawn) The method according to Claim 38 wherein the complexing agent is selected from the group consisting of: citric acid, lignosulfonates, fulvic acid, ulmic acid, humic acid, Katy-J, EDTA, EDDA, EDDHA, HEDTA, CDTA, PTPA or NTA.

51. (Withdrawn) The method according to Claim 38 wherein the carbon skeleton energy component is selected from the group consisting of: mannose, lactose, dextrose, erythrose, fructose, fucose, galactose, glucose, gulose, maltose, raffinose, ribose, ribulose, rutinose, saccharose, stachyose, trehalose, xylose, xylulose, adonose, amylose, arabinose, fructose phosphate, fucose-p, galactose-p, glucose-p, lactose-p, maltose-p, mannose-p, ribose-p, ribulose-p, xylose-p, xylulose-p, deoxyribose, adonitol, galactitol, glucitol, maltitol, mannitol, mannitol-p, ribitol, sorbitol, sorbitol-p, xylitol and mixtures thereof. --

Please add the following new claims.]

52. (New) The method according to Claim 40 wherein the complexing agent is at least one of: citric acid, lignosulfonates, fulvic acid, ulmic acid, humic acid, polyhydroxy organic acid, EDTA, EDDA, EDDHA, HEDTA, CDTA, DTPA or NTA.

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53. (New) The method according to Claim 40 wherein the carbon skeleton energy component is at least one of a: sugar, sugar alcohol, organic acid and nucleotide.
54. (New) The method according to Claim 53 wherein the carbon skeleton energy is at least one of: mannose, lactose, dextrose, erythrose, fructose, fucose, galactose, glucose, gulose, maltose, raffinose, ribose, ribulose, rutinose, saccharose, stachyose, trehalose, xylose, xylulose, adonose, amylose, arabinose, fructose phosphate, fucose-p, galactose-p, glucose-p, lactose-p, maltose-p, mannose-p, ribose-p, ribulose-p, xylose-p, xylulose-p, deoxyribose, adonitol, galactitol, glucitol, maltitol, mannitol, mannitol-p, ribitol, sorbitol, sorbitol-p, xylitol and mixtures thereof.
55. (New) The method according to Claim 54 wherein the carbon skeleton energy component is molasses.
- E2 56. (New) The method according to Claim 40 wherein the macronutrient component is at least one of: nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, and derivatives thereof.
57. (New) The method according to Claim 56 wherein the macronutrient component is nitrogen and the nitrogen is present as trivalent nitrogen and pentavalent nitrogen.
58. (New) The method according to Claim 57 wherein the trivalent nitrogen is ammonia or urea and the pentavalent is nitrate.
59. (New) The method according to Claim 56 wherein the amount of trivalent nitrogen ranges from 10 moles to 90 moles.
60. (New) The method according to Claim 56 wherein the amount of pentavalent nitrogen ranges from 10 moles to 90 moles.
61. (New) The method of Claim 56 wherein the ratio of trivalent nitrogen to pentavalent nitrogen is about 50:50.
62. (New) The method according to Claim 40 wherein the micronutrient component is at least one of: zinc, iron, manganese, copper, boron, molybdenum and derivatives thereof.

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63. (New) The method according to Claim 40 wherein the vitamin/cofactor component is at least one of: thiamine, riboflavin, nicotinic acid, pyridoxine, folic acid, biotin, pantothenic acid, inositol, para-aminobenzoic acid, and derivatives thereof.

64. (New) The method according to Claim 41 wherein the micro-organisms are chosen from: *Pseudomonas fluorescens*, *Pseudomonas putida*, *Gliocapsa roseum*, *Streptomyces griseus*, *Gliocladium roseum*, *Bacillus subtilis*, *Anabaena* sp., *Sirpetomyces aureofaciens*, *Bacillus megaterium*, *Bacillus cereus*, *Bacillus brevis*, *Bacillus thuringiensis*, *Gliocladium virens*, *Talaromyces flavus*, *Trichoderma viride*, *Trichoderma harzianum*, *Penicillium citrium*, *Acremonium falciforme* and *Ulocladium tuberculatum*.

65. (New) The method of Claim 64 wherein the composition includes two or more different types of micro-organisms.

66. (New) The method of Claim 40 wherein the method is a method of treating soil to promote the growth of at least one of cereal crops, legumes, forage crops, stem and leaf crops, root crops, fruit crops, seed vegetables, nut crops, beverage crops, oil crops, fat crops, wax crops, spice crops, perfume plants, flavoring plants, forest crops, fiber crops and ornamental crops.

67. (New) The method of Claim 66 wherein the method is a method of promoting the growth of cereal crops and the cereal crops are at least one of: rice, wheat, corn, barley, oats, sorghum, rye and millet.

68. (New) The method of Claim 66 wherein the method is a method of promoting the growth of legumes and the legumes are at least one of: soybean, peanut, bean, broad bean, pea, chickpea, black eyed pea, pigeon pea and guar.

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